Begge 1 of 7



PCT09

RAW SEQUENCE LISTING DATE: 05/15/2002 PATENT APPLICATION: US/09/980,526 TIME: 13:56:43

Input Set : A:\07039-278001.txt

Output Set: N:\CRF3\05152002\1980526.raw

ENTERED

4 <110> APPLICANT: Federspiel, Mark J. 6 <120> TITLE OF INVENTION: Methods to inhibit infectious agent transmission 8 <130> FILE REFERENCE: 07039-278001 C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/980,526 C--> 10 <141> CURRENT FILING DATE: 2001-11-15 10 <150> PRIOR APPLICATION NUMBER: US 09/980,526 11 <151> PRIOR FILING DATE: 2001-11-15 13 <150> PRIOR APPLICATION NUMBER: US 60/135,631 14 <151> PRIOR FILING DATE: 1999-05-24 16 <160> NUMBER OF SEQ ID NOS: 34 18 <170> SOFTWARE: FastSEQ for Windows Version 4.0 20 <210> SEQ ID NO: 1 21 <211> LENGTH: 47 22 <212> TYPE: DNA 23 <213> ORGANISM: Artificial Sequence 25 <220> FEATURE: 26 <223> OTHER INFORMATION: Primer 28 <400> SEQUENCE: 1 29 gcgcatgcag atctgatgct taaacaggta gaaattttca ccgatgg 47 31 <210> SEQ ID NO: 2 32 <211> LENGTH: 45 33 <212> TYPE: DNA 34 <213> ORGANISM: Artificial Sequence 36 <220> FEATURE: 37 <223> OTHER INFORMATION: Primer 39 <400> SEQUENCE: 2 40 gctgctgcgt cgacttaaac ttcaacttgg tagcctgtat cttcc 45 42 <210> SEQ ID NO: 3 43 <211> LENGTH: 659 44 <212> TYPE: PRT 45 <213> ORGANISM: Porcine endogenous retrovirus 47 <400> SEQUENCE: 3 48 Met His Pro Thr Leu Ser Arg Arg His Leu Pro Ile Arg Gly Gly Lys 49 1 5 50 Pro Lys Arg Leu Lys Ile Pro Leu Ser Phe Ala Ser Ile Ala Trp Phe 20 25 52 Leu Thr Leu Ser Ile Thr Pro Gln Val Asn Gly Lys Arg Leu Val Asp 40 54 Ser Pro Asn Ser His Lys Pro Leu Ser Leu Thr Trp Leu Leu Thr Asp 55 56 Ser Gly Thr Gly Ile Asn Ile Asn Ser Thr Gln Gly Glu Ala Pro Leu 57 65 70 58 Gly Thr Trp Trp Pro Glu Leu Tyr Val Cys Leu Arg Ser Val Ile Pro

RAW SEQUENCE LISTING DATE: 05/15/2002 PATENT APPLICATION: US/09/980,526 TIME: 13:56:43

Input Set : A:\07039-278001.txt

Output Set: N:\CRF3\05152002\I980526.raw

59					85					90					95	
60	Gly	Leu	Asn	Asp 100		Ala	Thr	Pro	Pro 105	Asp	Val	Leu	Arg	Ala 110	Tyr	Gly
61 62 63	Phe	Tyr	Val		Pro	Gly	Pro	Pro 120		Asn	Glu	Glu	Tyr 125		Gly	Asn
64 65	Pro	Gln 130		Phe	Phe	Cys	Lys 135	Gln	Trp	Ser	Cys	Val 140	Thr	Ser	Asn	Asp
66	Gly 145		Trp	Lys	Trp	Pro 150	Val	Ser	Gln	Gln	Asp 155	Arg	Val	Ser	Tyr	Ser 160
		Val	Asn	Asn	Pro 165	Thr	Ser	Tyr	Asn	Gln 170	Phe	Asn	Tyr	Gly	His 175	Gly
70 71	Arg	Trp	Lys	Asp 180	Trp	Gln	Gln	Arg	Val 185	Gln	Lys	Asp	Val	Arg 190	Asn	Lys
72 73			195					200					205		Ser	
74 75		210					215					220			Gly	
77	225					230					235				Gly	240
78 79	Val	Leu	Thr	Ile	Arg 245	Leu	Arg	Ile	Glu	Thr 250	Gln	Met	Glu	Pro	Pro 255	Val
80 81				260					265					270	Ile	
82 83			275					280					285		Ser	
85		290					295					300			Lys	
87	305					310					315				Thr	320
88 89	Glu	Ala	Thr	Ser	Ser 325	Cys	Trp	Leu	Cys	Leu 330	Ala	Ser	Gly	Pro	Pro 335	Tyr
91	_			340					345					350	Glu	
93			355					360					365		Thr	
95		370					375					380			His	
97	385					390					395				Ser	400
99					405					410					415	Leu
10	1			42)				42	5				43	0	e Cys
10	3		43	5		•		44	0				44	5		s Ala
10 10	4 V a:	45	0				45	5				46	0			ı Pro
10	6 Ile 7 46	e Se	r Le	u Th	r Le	u Al 47		l Me	t Le	u Gl	y Le [*] 47	u G1 5	y Va	l Al	a Ala	a Gly 480

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/980,526

DATE: 05/15/2002 TIME: 13:56:43

Input Set : A:\07039-278001.txt

Output Set: N:\CRF3\05152002\1980526.raw

109	y Thr G	ly Th	ır Ala	a Ala	a Lei	ı Ile	Thi	Gly	Pro	o Gl	n Gl	n Le	u Glu
110 Lys Gl	y Leu S	er As	n Lei	u His	s Arg	j Ile	490 Val) L Thr	: Glu	ı As	n Le	49 u Gl	5 n Ala
	J	00				505	١				E 1	^	
112 Leu Gl	213				521)				E 2	_		
114 Glu Vai 115 530	l Val L	eu Gl	n Ası	n Arg	Arg	, Gly	Leu	Asp	Leu	ı Lei	u Ph	e Le	u Lys
	,			7) 7 7	•				E 4 C	`			
116 Glu Gly 117 545			220	,				755					
118 Asp His	Ser G	ly Al	a Ile	arg	Asp	Ser	Met	Asn	Lvs	Lei	ı Ard	a Gli	560
,		ט ס.)				570						_
120 Leu Glu 121	Lys A	rg Arg 30	g Arg	, Glu	Lys	Glu	Thr	Thr	Gln	G13	Tr	Phe	e Glu
122 Gly Trp	٠.					ካጸካ					F 0 4	•	
	222				600					606	•		
124 Thr Gly	Pro Le	eu Ile	e Val	Leu	Leu	Leu	Leu	Leu	Thr	Val	, Gla	7 Pro	Cve
~=0 010				D.T.D					620				
126 Ile Ile 127 625	Asn Ly	s Leu	Ile	Ala	Phe	Ile	Arg	Glu	Arg	Ile	Ser	Ala	Val
			0.30					625					-
128 Gln Ile 129	1100 40	645	i Alg	GIH	GIII	Tyr	650	Ser	Pro	Ser	Ser		
130 Ala Gly	Arg						0.50					655	
133 <210> S	EQ ID N	0: 4											
134 <211> L:	ENGTH:	660											
135 <212> T	YPE: PR	T Desired		_									
136 <213> OI 138 <400> SI	COULTICE	: Por	cine	endo	ogeno	ous r	etro	viru	ıs				
120 Mot 71	PEOPIACE	. 4											
TOO MEL HIS	Pro Th	r Leu	Ser	λνα	7 ~~	TI i a	T			_			
139 Met His 140 1		r Leu 5					10					4 -	
141 Pro Lys		r Leu 5					10					4 -	
141 Pro Lys 142	Arg Le	r Leu 5 u Lys	Ile	Pro	Leu	Ser	10 Phe	Ala	Ser	Ile	Ala	15 Trp	Phe
141 Pro Lys 142 143 Leu Thr	Arg Le 20 Leu Se	r Leu 5 u Lys	Ile	Pro Pro	Leu Gln	Ser	10 Phe	Ala	Ser	Ile	Ala	15 Trp	Phe
141 Pro Lys 142 143 Leu Thr 144	Arg Le 20 Leu Se 35	r Leu 5 u Lys r Ile	Ile Thr	Pro Pro	Leu Gln	Ser 25 Val	10 Phe Asn	Ala Gly	Ser Lys	Ile Arg	Ala 30 Leu	15 Trp Val	Phe Asp
141 Pro Lys 142 143 Leu Thr	Arg Le 20 Leu Se 35	r Leu 5 u Lys r Ile	Ile Thr	Pro Pro Pro	Leu Gln	Ser 25 Val	10 Phe Asn	Ala Gly Thr	Ser Lys Trp	Ile Arg	Ala 30 Leu	15 Trp Val	Phe Asp
141 Pro Lys 142 143 Leu Thr 144 145 Ser Pro 146 50	Arg Le 20 Leu Se 35 Asn Se	r Leu 5 u Lys r Ile r His	Ile Thr Lys	Pro Pro Pro	Leu Gln 40 Leu	Ser 25 Val Ser	10 Phe Asn Leu	Ala Gly Thr	Ser Lys	Ile Arg 45 Leu	Ala 30 Leu Leu	15 Trp Val Thr	Phe Asp Asp
141 Pro Lys 142 143 Leu Thr 144 145 Ser Pro 146 50 147 Ser Gly 148 65	Arg Le 20 Leu Se 35 Asn Se Thr Gly	r Leu 5 u Lys r Ile r His	Ile Thr Lys Asn	Pro Pro Pro 55 Ile	Leu Gln 40 Leu Asn	Ser 25 Val Ser Ser	10 Phe Asn Leu Thr	Ala Gly Thr	Ser Lys Trp 60 Gly	Ile Arg 45 Leu Glu	Ala 30 Leu Leu Ala	15 Trp Val Thr	Phe Asp Asp Leu
141 Pro Lys 142 143 Leu Thr 144 145 Ser Pro 146 50 147 Ser Gly 148 65 149 Gly Thr	Arg Le 20 Leu Se 35 Asn Se Thr Gly	r Leu 5 u Lys r Ile r His // Ile	Ile Thr Lys Asn	Pro Pro Pro 55 Ile	Leu Gln 40 Leu Asn	Ser 25 Val Ser Ser	10 Phe Asn Leu Thr	Ala Gly Thr	Ser Lys Trp 60 Gly	Ile Arg 45 Leu Glu	Ala 30 Leu Leu Ala	15 Trp Val Thr	Phe Asp Asp Leu
141 Pro Lys 142 143 Leu Thr 144 145 Ser Pro 146 50 147 Ser Gly 148 65 149 Gly Thr 150	Arg Le 20 Leu Se 35 Asn Se: Thr Gly	r Leu 5 u Lys r Ile r His 7 Ile 9 Pro 85	Ile Thr Lys Asn 70 Glu	Pro Pro 55 Ile	Leu Gln 40 Leu Asn	Ser 25 Val Ser Ser	Phe Asn Leu Thr	Ala Gly Thr Gln 75 Leu 2	Ser Lys Trp 60 Gly	Ile Arg 45 Leu Glu Ser	Ala 30 Leu Leu Ala Val	15 Trp Val Thr Pro	Phe Asp Asp Leu 80 Pro
141 Pro Lys 142 143 Leu Thr 144 145 Ser Pro 146 50 147 Ser Gly 148 65 149 Gly Thr 150 151 Gly Leu	Arg Le 20 Leu Se 35 Asn Se Thr Gly Trp Trp	r Leu 5 u Lys r Ile r His r Ile Pro 85 o Gln	Ile Thr Lys Asn 70 Glu	Pro Pro 55 Ile	Leu Gln 40 Leu Asn Tyr	Ser 25 Val Ser Ser Val (Phe Asn Leu Thr	Ala Gly Thr Gln 75 Leu 2	Ser Lys Trp 60 Gly	Ile Arg 45 Leu Glu Ser	Ala 30 Leu Leu Ala Val	15 Trp Val Thr Pro	Phe Asp Asp Leu 80 Pro
141 Pro Lys 142 143 Leu Thr 144 145 Ser Pro 146 50 147 Ser Gly 148 65 149 Gly Thr 150 151 Gly Leu 152	Arg Le 20 Leu Se 35 Asn Se: Thr Gly Trp Trp Asn Asp	r Leu 5 u Lys r Ile r His 7 Ile 9 Pro 85 6 Gln	Thr Lys Asn 70 Glu Ala	Pro Pro 55 Ile	Leu Gln 40 Leu Asn Tyr	Ser 25 Val Ser Ser Val	Phe Asn Leu Thr Cys 90 Asp	Ala Gly Thr Gln 75 Leu 2	Ser Lys Trp 60 Gly Arg	Ile Arg 45 Leu Glu Ser Arg	Ala 30 Leu Leu Ala Val	15 Trp Val Thr Pro Ile 95 Tyr	Phe Asp Asp Leu 80 Pro Gly
141 Pro Lys 142 143 Leu Thr 144 145 Ser Pro 146 50 147 Ser Gly 148 65 149 Gly Thr 150 151 Gly Leu 152 153 Phe Tyr 154	Arg Le 20 Leu Se 35 Asn Se Thr Gly Trp Trp Asn Asp 100 Val Cys	r Leu 5 u Lys r Ile r His 7 Ile 9 Pro 85 6 Gln	Thr Lys Asn 70 Glu Ala Gly	Pro Pro 55 Ile Leu Thr	Leu Gln 40 Leu Asn Tyr Pro	Ser 25 Val Ser Ser Val (Thr Cys : 90 Asn (Asn (Asn (Asn (Asn (Asn (Asn (Asn (Ala Gly Thr Gln (75 Leu 2	Ser Lys Trp 60 Gly Arg Leu	Arg 45 Leu Glu Ser Arg	Ala 30 Leu Leu Ala Val Ala 110 Cys	15 Trp Val Thr Pro Ile 95 Tyr Gly	Phe Asp Asp Leu 80 Pro Gly Asn
141 Pro Lys 142 143 Leu Thr 144 145 Ser Pro 146 50 147 Ser Gly 148 65 149 Gly Thr 150 151 Gly Leu 152 153 Phe Tyr 154 155 Pro Gln	Arg Le 20 Leu Se 35 Asn Se Thr Gly Trp Trp Asn Asp 100 Val Cys	r Leu 5 u Lys r Ile r His 7 Ile 9 Pro 85 6 Gln	Thr Lys Asn 70 Glu Ala Gly	Pro Pro 55 Ile Leu Thr	Leu Gln 40 Leu Asn Tyr Pro	Ser 25 Val Ser Ser Val (Thr Cys : 90 Asn (Asn (Asn (Asn (Asn (Asn (Asn (Asn (Ala Gly Thr Gln (75 Leu 2	Ser Lys Trp 60 Gly Arg Leu	Arg 45 Leu Glu Ser Arg	Ala 30 Leu Leu Ala Val Ala 110 Cys	15 Trp Val Thr Pro Ile 95 Tyr Gly	Phe Asp Asp Leu 80 Pro Gly Asn
141 Pro Lys 142 143 Leu Thr 144 145 Ser Pro 146 50 147 Ser Gly 148 65 149 Gly Thr 150 151 Gly Leu 152 153 Phe Tyr 154 155 Pro Gln 156 130	Arg Le 20 Leu Se 35 Asn Se Thr Gly Trp Trp 100 Val Cys 115 Asp Phe	r Leu 5 u Lys r Ile r His r Ile Pro 85 o Gln Pro	Thr Lys Asn 70 Glu Ala Gly Cys	Pro Pro 55 Ile Leu Thr Lys (135)	Leu Gln 40 Leu Asn Tyr Pro 120 Gln	Ser 25 Val Ser Ser Val 6 Pro 2 Asn A	Thr Cys: Asp Masp Masp Masp Masp Masp Masp Masp Ma	Ala Gly Thr Gln 75 Leu Wal Glu Cys I	Ser Lys Trp 60 Gly Arg Leu Glu Ele	Ile Arg 45 Leu Glu Ser Arg Tyr 125 Thr	Ala 30 Leu Leu Ala Val Ala 110 Cys Ser	15 Trp Val Thr Pro Ile 95 Tyr Gly Asn	Phe Asp Asp Leu 80 Pro Gly Asn Asp
141 Pro Lys 142 143 Leu Thr 144 145 Ser Pro 146 50 147 Ser Gly 148 65 149 Gly Thr 150 151 Gly Leu 152 153 Phe Tyr 154 155 Pro Gln 156 130 157 Gly Asn	Arg Le 20 Leu Se 35 Asn Se Thr Gly Trp Trp 100 Val Cys 115 Asp Phe	r Leu 5 u Lys r Ile r His 7 Ile 9 Pro 85 6 Gln 7 Pro Phe Trp	Thr Lys Asn 70 Glu Ala Gly Cys Pro	Pro Pro 55 Ile Leu Thr Lys (135)	Leu Gln 40 Leu Asn Tyr Pro 120 Gln	Ser 25 Val Ser Ser Val 6 Pro 2 Asn A	Thr Cys: Asp Masp Masp Masp Masp Masp Masp Masp Ma	Ala Gly Thr Gln 75 Leu Wal Glu Cys I	Ser Lys Trp 60 Gly Arg Leu Glu Ele	Ile Arg 45 Leu Glu Ser Arg Tyr 125 Thr	Ala 30 Leu Leu Ala Val Ala 110 Cys Ser	15 Trp Val Thr Pro Ile 95 Tyr Gly Asn	Phe Asp Asp Leu 80 Pro Gly Asn Asp
141 Pro Lys 142 143 Leu Thr 144 145 Ser Pro 146 50 147 Ser Gly 148 65 149 Gly Thr 150 151 Gly Leu 152 153 Phe Tyr 154 155 Pro Gln	Arg Le 20 Leu Se 35 Asn Se Thr Gly Trp Trp 100 Val Cys 115 Asp Phe	r Leu 5 u Lys r Ile r His r Ile Pro 85 o Gln Pro Phe Trp	Thr Lys Asn 70 Glu Ala Gly Cys Pro V	Pro Pro 55 Ile Leu Thr Pro Lys 0 135 Val S	Leu Gln 40 Leu Asn Tyr Pro 120 Gln Ser (Ser 25 Val Ser Ser Val Ger 105 Asn B	Thr Cys : 90 Asp Masn (Ser Coll	Ala Gly Thr Gln 75 Leu A Glu C C y S I A S P A	Ser Lys Trp 60 Gly Arg Leu Glu Glu Glu Glu Glu Glu Glu Glu Glu Gl	Ile Arg 45 Leu Glu Ser Arg Tyr 125 Thr	Ala 30 Leu Leu Ala Val Ala 110 Cys Ser	15 Trp Val Thr Pro Ile 95 Tyr Gly Asn	Phe Asp Asp Leu 80 Pro Gly Asn Asp

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/980,526

DATE: 05/15/2002 TIME: 13:56:43

Input Set : A:\07039-278001.txt

Output Set: N:\CRF3\05152002\1980526.raw

160		165	;				17	٠.					_
161 Arg Ti 162	p Lys A	sp Trr	Gln	Gln	Arc	ı Val	17. 1. G1:	U n Tre	~ 7 ~.	_ 77		17	5
163 Gln I] 164	e Ser C	vs His	Ser	T.Qu	λar	T 0.	, 1	. m			19	0	
164	195	1	DCI	Lieu	200	, rec	ı AS	o Tyl	r Lei	ı Ly	s Il	e Se	r Phe
165 Thr G1		ly Lyc	Cln	C1	200	~ 1	~ -	_		20	5		
165 Thr G1 166 21	n 2,5 0	ту шуз	GIII	GIU	ASI	116	GT1	n Lys	Tr	o Va	l As	n Gl	y Ile
167 Ser Tr 168 225	b gra I	re var	Tyr	Tyr	Gly	Gly	Sei	c Gly	Arc	J Ly	s Ly	s Gl	y Ser
169 Val Le 170	u Thr I	le Arg	Leu	Arg	Ile	Glu	Thr	Gln	Met	Gl	u Pro	o Pr	o Val
171 Ala Il 172	e Gly P	ro Asn	Lys	Gly	Leu	Ala	Glu	Gln	Glv	Pro) Pro	2 Tl	e Cln
	£ 1					ノわち					0 - 0	~	
173 Glu Gl 174	n Arg Pi	ro Ser	Pro	Asn	Pro	Ser	Asp	Tvr	Asn	Th	ጉ የሞክ	, ev.	r C1
	4,5				7811					~~.	-		
175 Ser Va 176 29	l Pro Th	nr Glu	Pro	Asn	Ile	Thr	Tle	Tage	ጥኮሎ	C1.	, , , , , , ,	. T	-
177 Phe Se:	r Leu Il	e Gln	Glv	Ala	Phe	Gln	λĺa	T 011	300		1		
179 Glu Ala 180	a Thr Se	r Ser	Cve	Trn	Lou	Ctra	т	315	_				320
180		325	0,10	115	шец	Cys	Leu	Ala	ser	Gly	Pro	Pro	Tyr
181 Tyr Gli	ı Glv Me	t Ala	Ara (~1	C1	T	330	_				335	5
181 Tyr Glu 182	34	n	nig (эту	СТУ	гуѕ	Pne	Asn	Val	Thr	Lys	Glu	His
183 Arg Agr	Gln Cu	o The	// mm /	7 7	a	345					350		
183 Arg Asp 184	355	2 1111	11p	этА	ser	GIn	Asn	Lys	Leu	Thr	Leu	Thr	Glu
185 Val Ser 186 370	оту пу	s Gry	THE (ys	тте	GLy	Met	Val	Pro	Pro	Ser	His	Gln
			-	1/1					200				
187 His Leu 188 385	Cys As	n His	Thr G	ilu A	Ala	Phe	Asn	Arg	Thr	Ser	Glu	Ser	Gln
			シラ ひ					205					
189 Tyr Leu 190	val Pr	o Gly	Tyr A	sp A	Arg	Trp	${\tt Trp}$	Ala	Cys	Asn	Thr	Glv	Leu
		400					# 1 A						
191 Thr Pro 192	Cys Va.	l Ser '	Thr L	eu i	/al	Phe	Asn	Gln	Thr	Lvs	Asp	Phe	Cvc
	721	,				475					4 2 2		
193 Val Met 194	Val Gli	ı Ile '	Val P	ro A	Arg '	Val	Tyr	Tvr	Tvr	Pro	Glu	Lve	λla
	4 J J				1411					4 4			
195 Val Leu 196 450	Asp Glu	ı Tyr A	Asp T	yr A	rg '	Tvr /	Asn	Ara	Pro	Live	λνα	C1	D
197 Ile Ser 198 465	Leu Thr	Leu A	la v	al M	let 1	Leu (Glv	Len	Glv	Va l	λ1-	7. J. ~	a 1
199 Val Gly 200	Thr Gly	Thr A	la A	la T	en 1	le '	Phr .	ais Clusi	Dro.	C1-	a1	-	480
		400				,	100						
201 Lys Gly 202	Leu Ser	Asn T	ен н	is A	ra 1	י י מו	± JU 7a1 '	Th	~ T		_	495	
202	500		11.	-U A	-y 1	.1e \ 505	al '	ınr (JLU A	qzA		Gln	Ala
203 Leu Glu	Lvs Ser	Vale	er 7	an T	OU 0	1115		~ .			510		
203 Leu Glu 204	515	, ar 9	CT W	ь 71 Т	eu (ııu (±u \$	ser I	Jeu ′	ľhr	Ser	Leu	Ser
205 Glu Val 206 530	· «T Ded	GIII A	SU Al	. 9 A:	rg G	та І	eu A	Asp I	Leu I	Leu	Phe	Leu	Lys
207 Glu Gly 208 545	ary ren	cys v	aı Al	a Le	eu L	ys G	lu (Glu C	ys C	ys :	Phe	Tyr	Val
		5	50				5	555					560

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/980,526

DATE: 05/15/2002 TIME: 13:56:43

Input Set : A:\07039-278001.txt

Output Set: N:\CRF3\05152002\1980526.raw

		Output Set: N:\CRF3\05152002\1980526.raw									N					
209 210	Asp	His	Ser	Gly	Ala 565	Ile	Arg	Asp	Ser	Met 570	Ser	Lys	Leu	Arg	Glu 575	Arg
	Leu	Glu	Arg	Arg 580	Arg	Arg	Glu	Arg	Glu 585	Ala	Asp	Gln	Gly	Trp 590	Phe	Glu
213 214	Gly	Trp	Phe 595	Asn	Arg	Ser	Pro	Trp 600	Met	Thr	Thr	Leu	Leu 605	Ser	Ala	Leu
216		610					615					620		Gly		_
218	625					630				_	635	_		Ser		640
219 220	Gln	Ile	Met	Val	Leu 645	Arg	Gln	Gln	Tyr	Gln 650	Gly	Leu	Leu	Ser	Gln 655	Gly
222		Thr	_	660												
225	<21	0> S1 1> L1	ENGTI	H: 63												
226	<21	2> T	YPE:	PRT												
227	<21	3> 01	RGAN:	ISM:	Por	cine	endo	ogeno	ous 1	retro	oviru	ıs				
		0> SI					-									
		His	Pro	Thr		Asn	Arg	Arg	His		Pro	Ile	Arg	Gly		Lys
231					5	_				10			_	_	15	
	Pro	Lys	Arg		Lys	Ile	Pro	Leu		Phe	Ala	Ser	Ile	Ala	Trp	Phe
233		_		20	_	_		_	25					30		
	Leu	Thr		Ser	Ile	Thr	Ser		Thr	Asn	Gly	Met	_	Ile	Gly	Asp
235	Com	T 011	35	Com	mi a	T	Dwo	40	Com	T 0.11	mhr	m ~~	45	т1.	mh m	7 00
236	ser	ьеи 50	ASII	ser	HIS	гÀг	55	Leu	ser	Leu	THE	60	Leu	Ile	THE	ASP
238 239		Gly	Thr	Gly	Ile	Asn 70	Ile	Asn	Asn	Thr	Gln 75	Gly	Glu	Ala	Pro	Leu 80
		Thr	Trp	Trp	Pro		Leu	Tyr	Val	Cys		Arg	Ser	Val	Ile	
241	_		_	_	85	_				90					95	
243				100					105					Phe 110		
244 245	Cys	Pro	Gly 115	Pro	Pro	Asn	Asn	Gly 120	Lys	His	Cys	Gly	Asn 125	Pro	Arg	Asp
246 247	Phe	Phe 130	Cys	Lys	Gln	Trp	Asn 135	Cys	Val	Thr	Ser	Asn 140	Asp	Gly	Tyr	Trp
	Lys		Pro	Thr	Ser	Gln		Asp	Arg	Val	Ser		Ser	Tyr	Val	Asn
249	_	-				150		-	-		155			-		160
250	Thr	Tyr	Thr	Ser	Ser	Gly	Gln	Phe	Asn	Tyr	Leu	Thr	Trp	Ile	Arg	Thr
251					165					170					175	
252 253	Gly	Ser	Pro	Lys 180	Cys	Ser	Pro	Ser	Asp 185	Leu	Asp	Tyr	Leu	Lys 190	Ile	Ser
254 255	Phe	Thr	Glu 195	Lys	Gly	Lys	Gln	Glu 200	Asn	Ile	Leu	Lys	Trp 205	Val	Asn	Gly
	Met	Ser 210	Trp	Gly	Met	Val	Tyr 215	Tyr	Gly	Gly	Ser	Gly 220	Lys	Gln	Pro	Gly
	Ser		Leu	Thr	Ile	Ara		Lys	Ile	Asn	Gln		Glu	Pro	Pro	Met
259						230		-10			235			0		240

VERIFICATION SUMMARY

DATE: 05/15/2002 PATENT APPLICATION: US/09/980,526 TIME: 13:56:45

Input Set : A:\07039-278001.txt

Output Set: N:\CRF3\05152002\1980526.raw

 $L:10\ M:270\ C:$ Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:1040 M:283 W: Missing Blank Line separator, <400> field identifier L:1077 M:283 W: Missing Blank Line separator, <400> field identifier